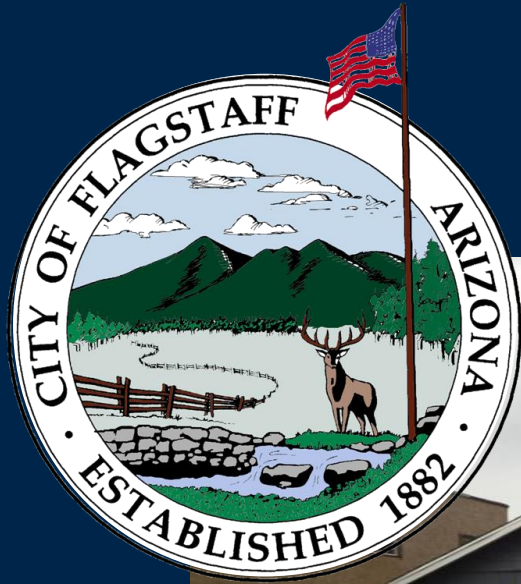


# Stormwater and Flooding in Flagstaff



Killip Elementary  
Science Camp

6/13/19

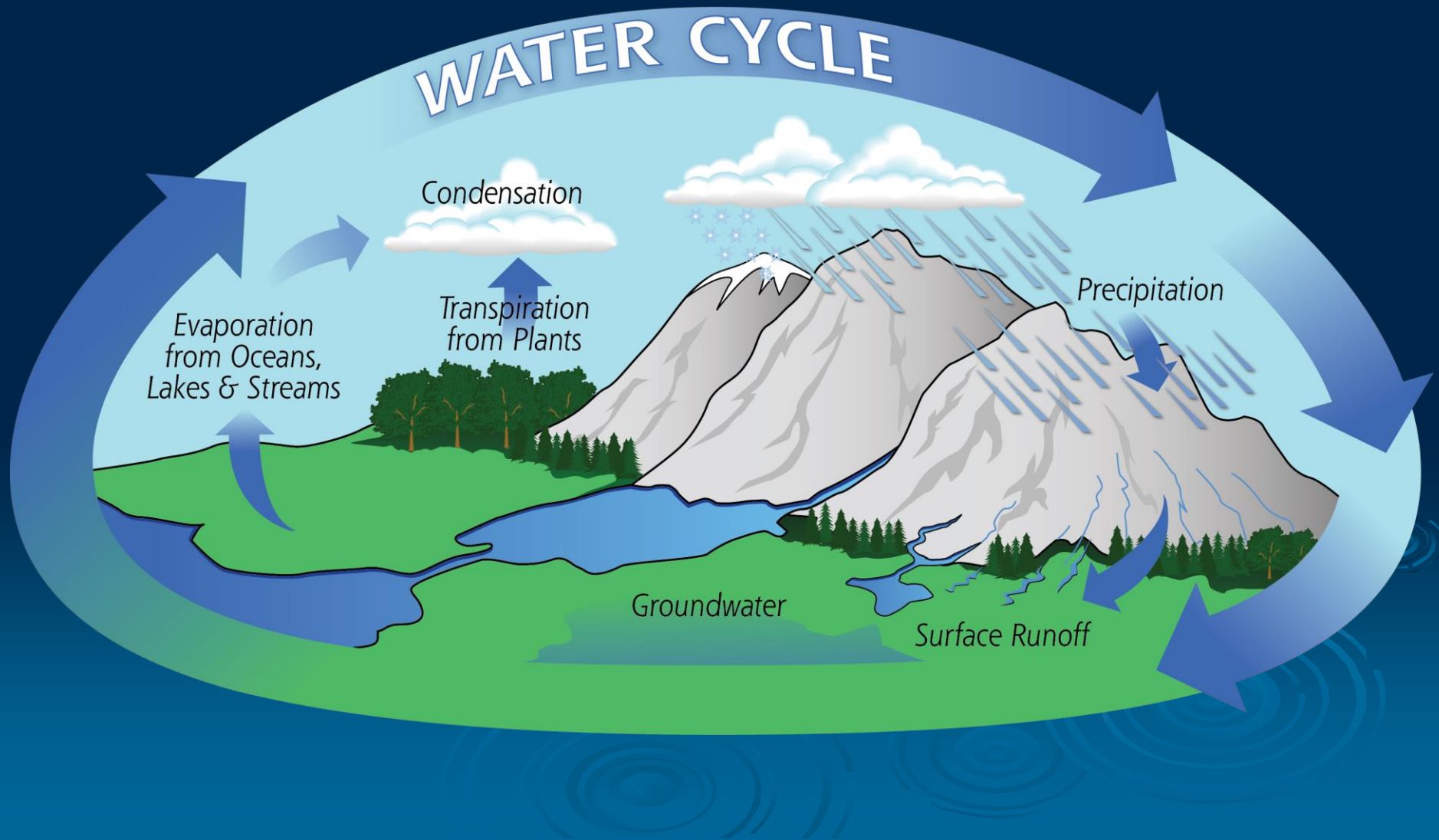
# About Me



I'm Madeleine and I work at the City of Flagstaff! I am a Water Conservation expert!

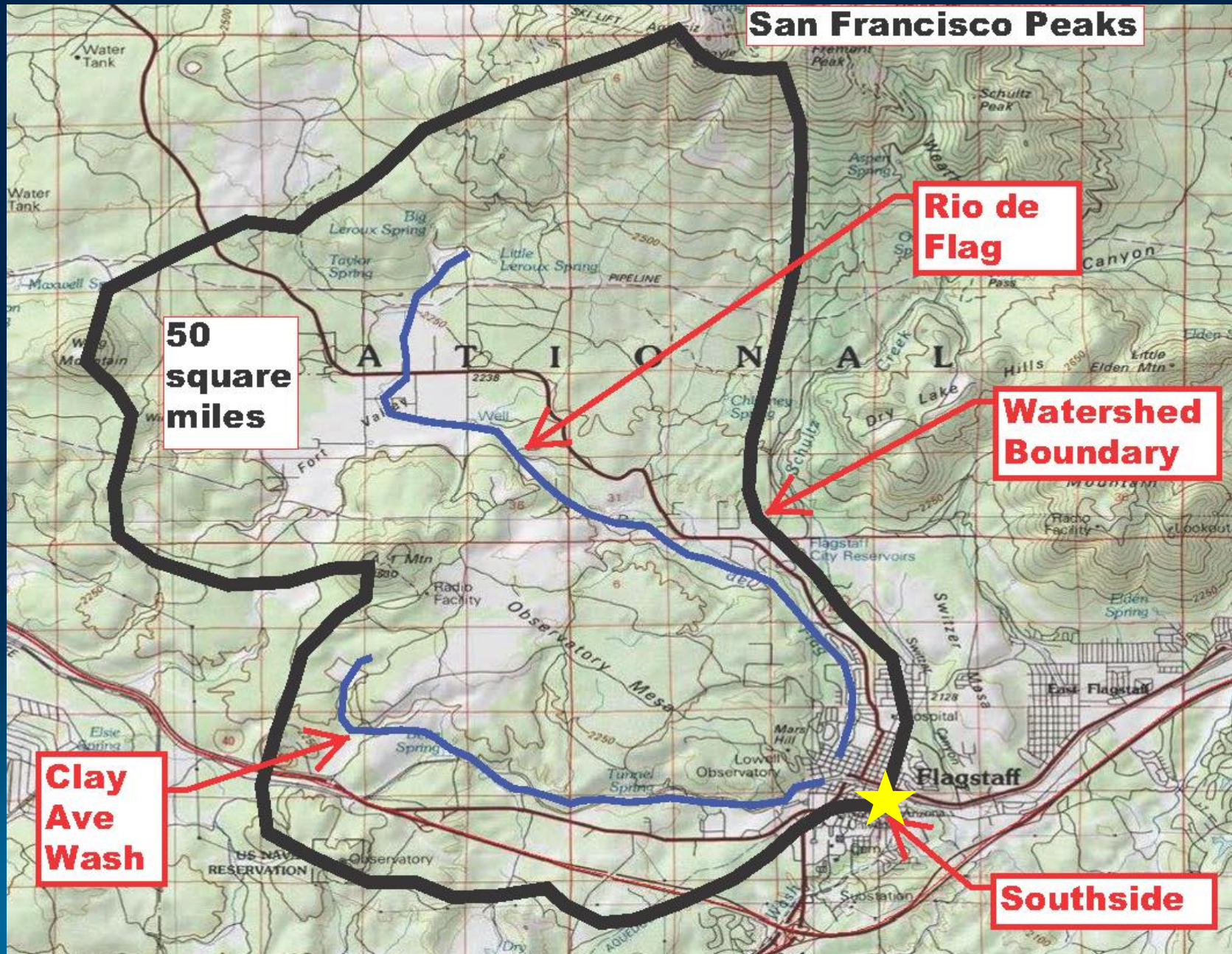
I'm here today to talk about how water can become a problem in our city.

# How does rain become a problem?



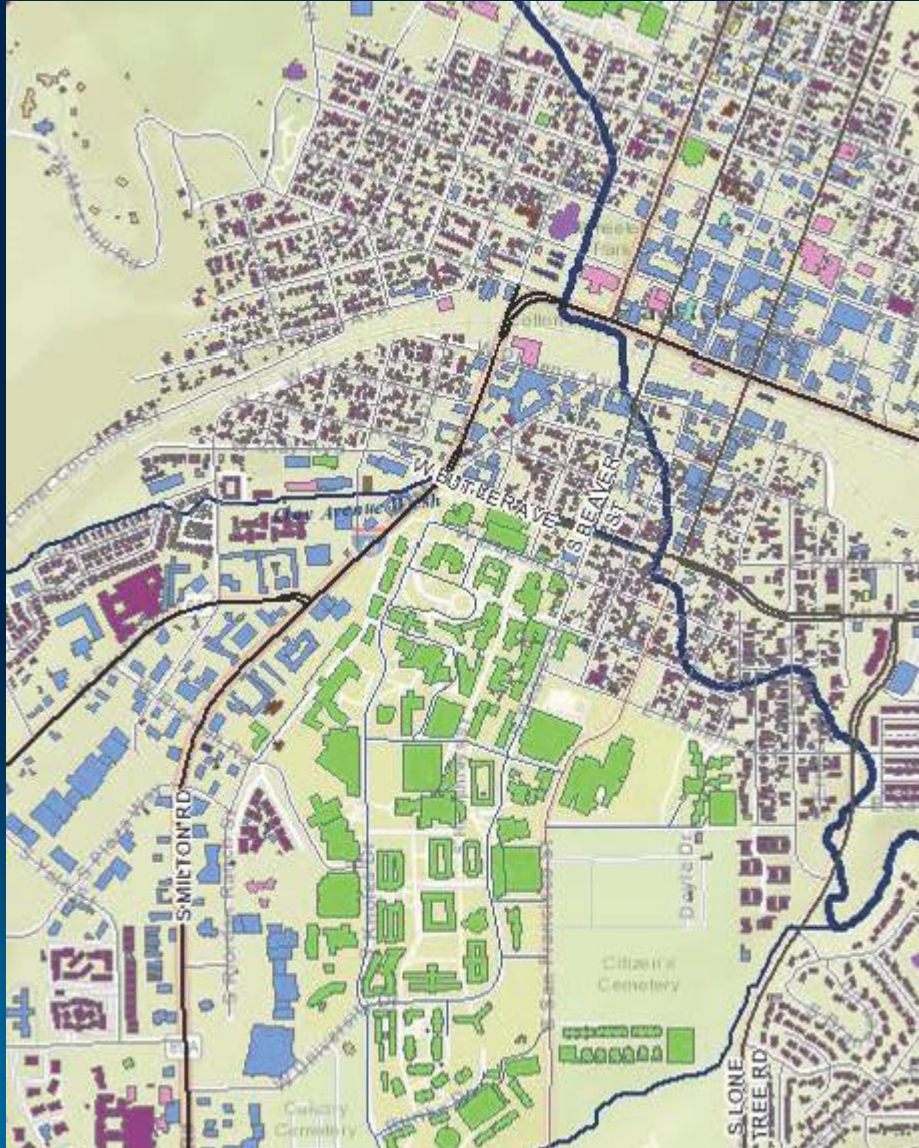


# Rio de Flag Watershed





# Downtown flooding





# Floods can be dangerous



# What happens to houses?

- Flood water is very dirty, so anything that is under water needs to be replaced
- All of the electronics need to be replaced
- Floors, walls, and inside walls may be ruined





# Stormwater Purpose

The purpose of the Stormwater Section at the City of Flagstaff is to...

- Reduce the chance of flooding
- Minimize the dangerous effects of stormwater





# Avoiding flooding

The City of Flagstaff does a lot things to keep flooding from happening...

- Storm drains move some of the water from the street to the Rio de Flag





# Avoiding flooding

The City of Flagstaff does a lot things to keep flooding from happening...

- Keeping our rivers and channels clean



A healthy  
channel



# Avoiding flooding

The City of Flagstaff does a lot things to keep flooding from happening...

- Keeping our rivers and channels clean



An unhealthy  
channel





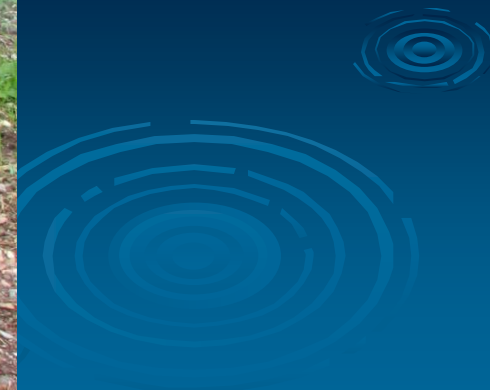
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An unhealthy  
channel





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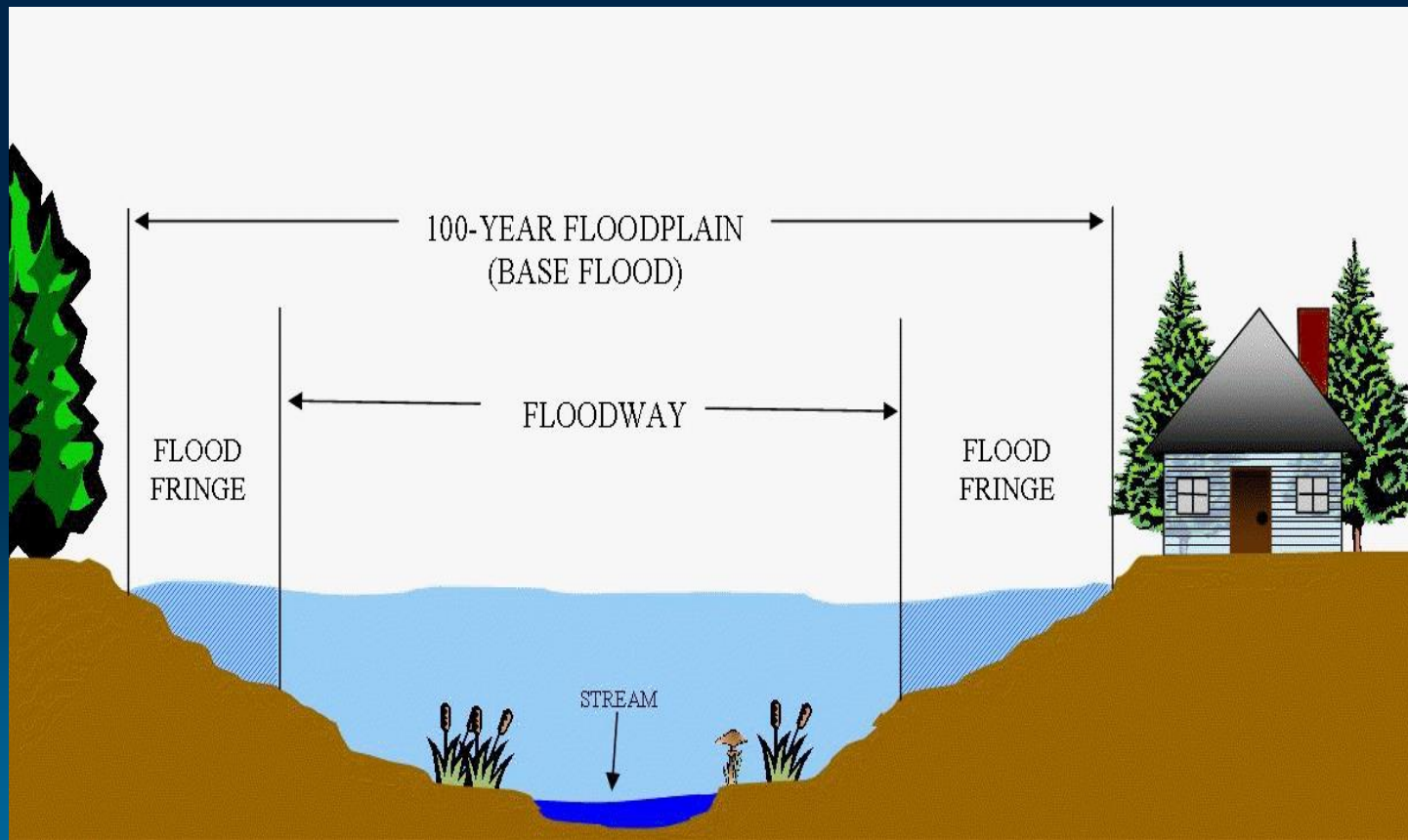
An unhealthy channel



# Avoiding flooding

The City of Flagstaff does a lot things to keep flooding from happening...

- Keeping homes above the floodplain







**Estimated FEMA  
100-year floodplain  
depth.**





# Avoiding flooding

The City of Flagstaff does a lot things to keep flooding from happening...

- Storing the first inch of water from rain storms



# Avoiding flooding

The City of Flagstaff does a lot things to keep flooding from happening...

- Storing the first inch of water from rain storms

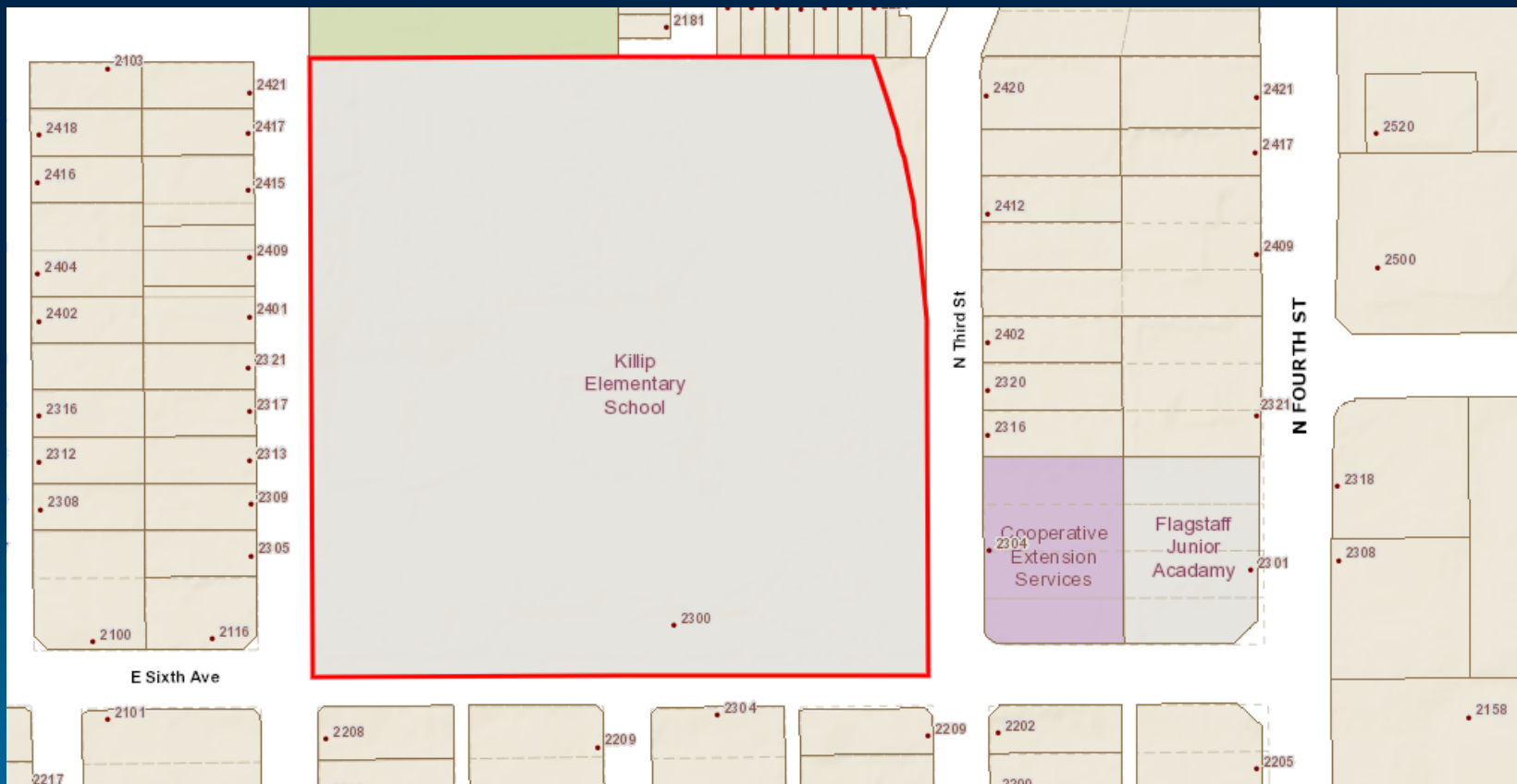




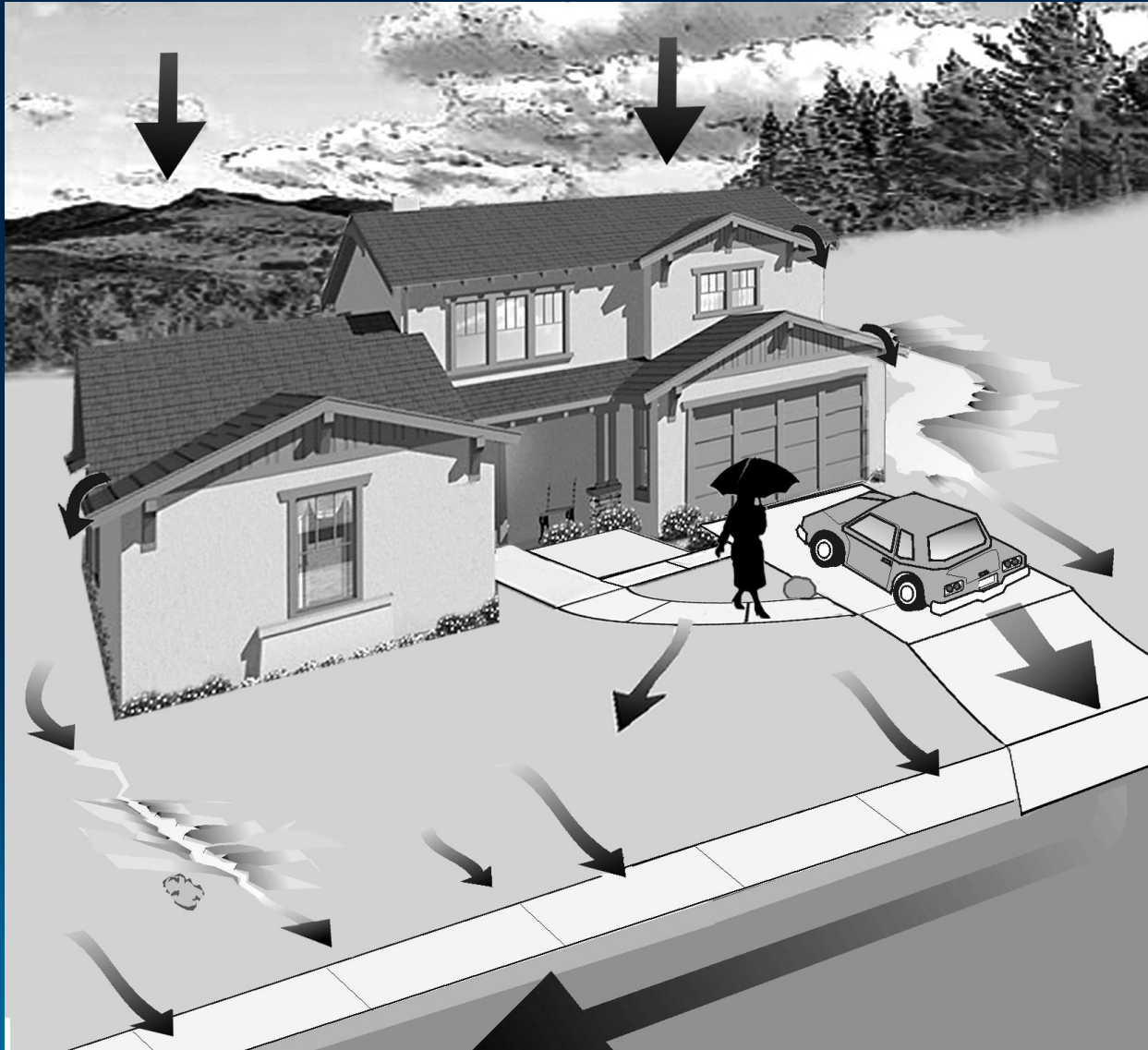
# Avoiding flooding

The City of Flagstaff does a lot things to keep flooding from happening...

- Keeping water on the property



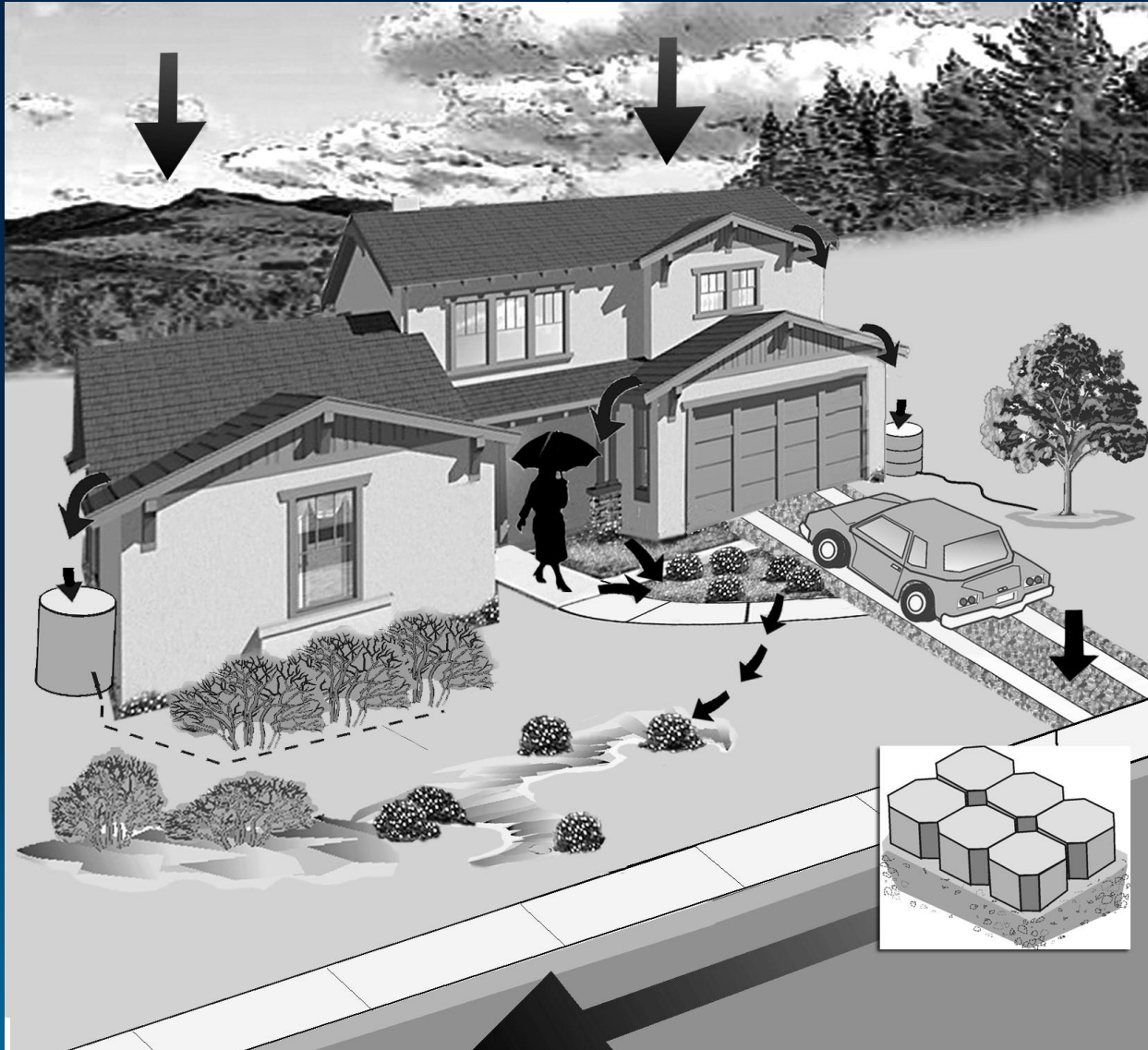
# A bad example ☹️



Hard surfaces  
cause water to  
run off



# A good example!



Ditches,  
permeable  
surfaces, rain  
water tanks, and  
plants...

keep water on  
the property!

# Oh no, a flood! What now?

Emergency measures need to be taken...

- The city offers technical assistance





# Oh no, a flood! What now?

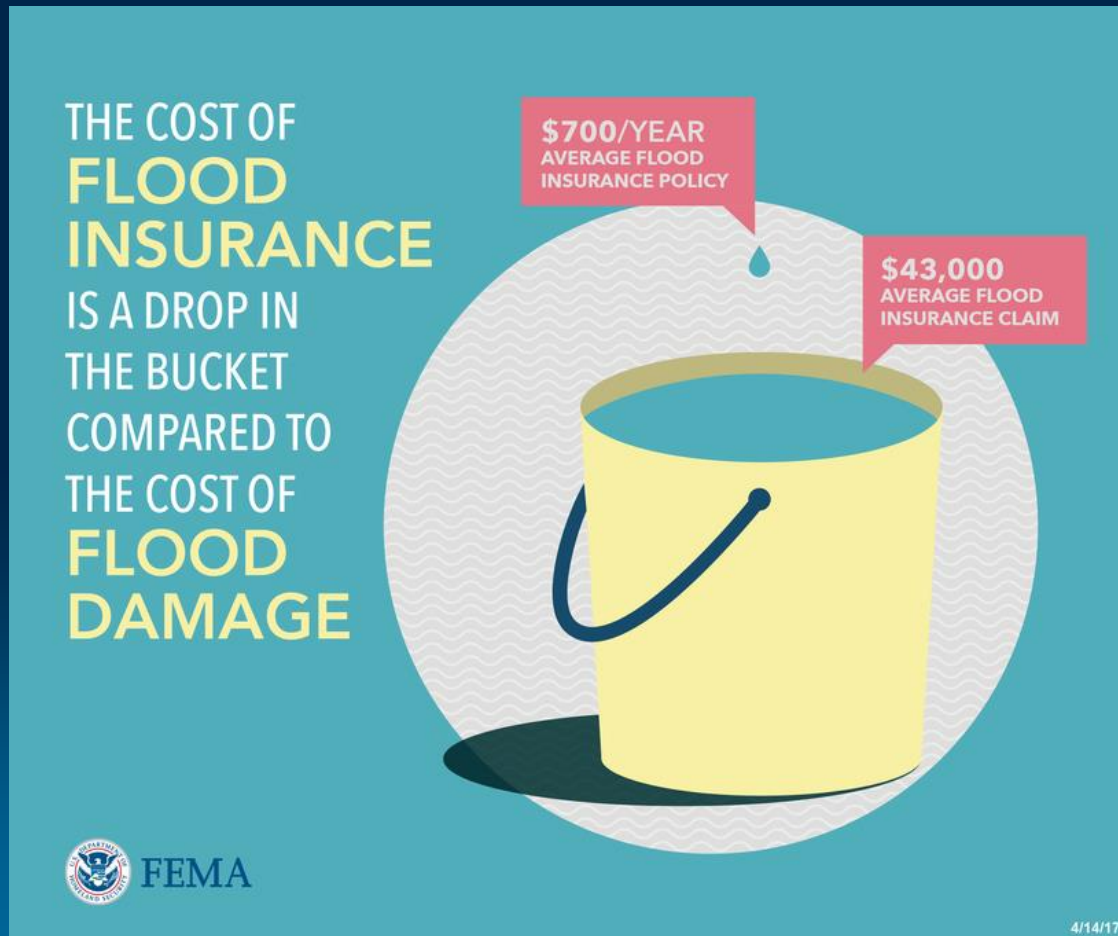
Emergency measures need to be taken...



# Oh no, a flood! What now?

Emergency measures need to be taken...

- You better have flood insurance!





# In summary

- Floods cause a lot of damage to peoples houses and the environment
- The City of Flagstaff has a lot of codes for builders to prevent bad effects





Questions?